1953

CALHOUN AND BATCHTOWN REFUGES
NARRATIVE REPORT
JANUARY, FEBRUARY, MARCH, APRIL, 1953

I. GENERAL

A. Weather Conditions:

The maximum temperatures in January and February were lower this year than for the same months a year ago. Minimum readings were higher this year in each month of the period, except February. Chilly east winds prevailed throughout most of the period. During March and April some high winds occurred, reaching tornado proportions at times. There was comparatively little sunshine this period. The April low of 34° occurred the last week of the month.

Relative readings for this period and the same period last year are shown below:

Month	Year	Maximum	Minimum	Precipitation
January	1952	73	4	.95"
	1953	64	12	2.12
February	1952	67	24	.82
	1953	64	19	1.36
March	1952	72	15	2.09
	1953	73	25	3.62
April	1952	80	31	2.06
	1953	90	34	3.09
			1952 Total	5.92
			1953 Total	10.19

Precipitation for the period was 10.19", compared to 5.92" for the same period a year ago. January, February, and March all showed more rain this year than a year ago, but April had 1.11" less than the same month in 1952.

JAN - APR 1953

B. Water Conditions:

The river stage was slightly lower in January and March than for the same time a year ago, while February and April showed slightly higher readings.

There is no high water in this portion of the river yet, and indications are that there might not be a flood this spring.

The fluctuations in pool levels as the result of manipulation of the dams was not bad in Pool 26. During the latter

part of March, however, Pool 25 was drawn down. It is normal again at this time.

A comparison of pool levels in Pool 26, compared to the same period in 1952, is shown in the following table:

Month	Year	High	Low	Difference
January	1952	16.8	15.3	1.5
	1953	15.1	14.6	.5
February	1952	15.1	14.8	.3
	1953	15.5	14.5	1.0
March	1952	18.5	14.9	3.6
	1953	16.0	14.9	1.1
April	1952	17.1	15.6	1.5
	1953	17.2	15.1	2.1

Maximum monthly variation in 1953 was 2.1', compared with 3.6 in 1952. The river never froze over during the winter months.

II. WILDLIFE

A. Migratory Birds:

1. Populations and Behavior:

(a) Waterfowl:

The duck population was lower this spring than last year. However, there was a big winter population, which might have had an effect on the spring movement. It was difficult to tell when new ducks came in or went out, and there was a constant dribble of birds through.

On the Calhoun Refuge there were 70,300 ducks present the first week of the period, including 70,000 mallards and 300 blacks. This number dropped to 61,000 the following week, and the week following, but populations started building back again the third week of the period, when 94,400 were observed. A continual increase then occurred, building up to the peak of 175,000 ducks the week of February 15-21. The last week of February showed 116,650 ducks still present, but numbers then dropped off to 61,300 on the first week of March, and showed a steady decline to the end of the period, when only 800 ducks remained.

Mallards were present in numbers when the report period opened, peaked at 150,000 the week of February 15-21, and dropped to 25 at the end of the period.

Blacks were also present when the period opened, peaked at 2,000 from February 8-21; and none remained at the close of

the period. They were last seen the week of April 19-25.

Gadwall were only present during the week of March 22-28, when 100 were found. Baldpate, on the other hand, made their appearance the week of January 11-17; peaked at 1,000 between February 15-21; and were last seen the week of April 5-11.

Pintails were first seen the week of January 11-17; peaked at 15,000 twice (once the week of February 15-21 and again the week of March 8-14); and were last seen the week of March 22-28.

Green-winged teal were seen the week of January 11-17, but were not seen again until the week of February 8-14, when they peaked at 500; and were last seen the first week of April. Blue-winged teal did not make their appearance until the week of February 8-14; peaked at 2,000 the week of April 12-18; and were still present at the end of the period.

Shovellers, too, arrived the week of January 11-17, and were not seen again until the second week of February. They peaked at 500 the last of March, and 25 were still present at the end of the period.

Wood ducks did not make their appearance until mid-March; peaked at 400 the first week of April; and 150 remained at the close of the period.

Only 100 redhead were seen this period, when they were present for two weeks from March 8-21. Canvas-back, on the other hand, showed up the second week of January, and remained until the end of March, peaking at 5,000 birds in mid-February.

Scaup arrived the same time the canvas-backs did; peaked at 30,000 the last week of March; and 500 were present at the close of the period. These birds were present in goodly numbers throughout the period, although they peaked somewhat later than other birds, and later than usual.

Golden-eye also showed up the second week in January, peaking at 400 birds on two different dates (weeks of February 15-21 and March 8-14); and were last seen the week of April 5-11.

Only 50 buffle-head were seen this spring, when 50 were present the last week of March. Ruddies showed up the first week of March; peaked at 800 the first week in April; and were last seen the week of April 19-25.

Mergansers were present from the second week of January; peaked at 500 the week of February 15-21; and were last seen the first week of April.

Waterfowl movement was earlier this spring than last, with a lot of ducks passing through and not stopping in the area. An estimated 341,600 ducks used the area this spring, compared to 497,000 in the spring of 1952.

It was found that puddle ducks made up 85% of the waterfowl use of the Calhoun Refuge this spring, with divers making up the remaining 15%. Duck day use by puddlers was estimated at 7,434,000 days, while divers made 1,234,800 days use of the area. There was a big increase in scaup on the Calhoun Refuge this spring, with a peak of 50,000, compared to 6,000 in 1952.

The Batchtown Refuge also showed less use this spring than last. Total use was estimated at 131,650, compared to 458,400 in 1952. Here, puddle ducks made up 88% of duck day use, with 1,976,625 days; while divers, with 277,200 duck days use, made up the remaining 12% of usage.

On the Batchtown Refuge, 15,000 mallards were present at the beginning of this report period. They peaked at 50,000 the second week of February, and 25 were present at the end of the period.

Blacks were first observed the second week of January; peaked at 400 the second week of February; and were last seen the week of April 19-25.

Gadwall were present only during the week of March 22-28, when 50 were seen. Baldpates, however, showed up the second week of February; peaked at 200; and were last seen the last week of March.

Pintails arrived the third week of January; peaked at 6,000 the middle of March; and were last seen the last week of that month.

Green-winged teal did not arrive until mid-February; peaked at 1,000 the first week of April; and were last seen the same week. Blue-wings appeared two weeks later than the green-wings did (February 22-28); peaked at 2,000 in mid-April; and 100 were present at the end of the period.

Shovellers were first observed the week of January 18-24, but disappeared and were next seen in mid-February. They peaked at 400 the first week of April, and 25 were present at the end of the period.

Wood ducks showed up late, not arriving until March 15. They peaked at 250 the first week of April, and 100 were present at the end of the period.

No redheads or ring-necks were observed on Batchtown, but canvas-back, which were first seen in mid-January, were common. This species peaked at 1,000 throughout most of February, and left by mid-April.

Scaup showed up the second week of January; peaked at 8,000 the first week of April; were still present at the end of the period; and were the third most common duck in this refuge area.

Golden-eye were first seen when scaup were; peaked at 300 in mid-March; and left the first of April.

Buffle-head were not common, being found only during the two week period of March 15-28; and only 700 duck days use was made of the refuge.

Ruddies were more common, arriving the first of March; peaking at 300 the first of April; and leaving by mid-April.

Mergansers were present at the beginning of the period; peaked at 300 for a big part of the period; and were last seen in mid-April.

The following table shows peak concentrations of puddlers and divers, together with estimated duck days use, for the Calhoun and Batchtown Refuges:

(See table on page 6.)

	Peak concentration		Duck day use	
	Calhoun	Batchtown	Calhoun	Batchtown
Puddle ducks:				
Mallard	150,000	50,000	6,769,175	1,709,925
Black	2,000	400	63,000	16,625
Gadwall	50	50	350	350
Baldpate	1,000	200	28,350	7,700
Pintail	15,000	6,000	497,700	184,800
G.w.teal	500	1,000	8,050	13,300
B.w.teal	2,000	2,000	37,100	25,200
Shoveller	500	400	18,025	12,075
Wood duck	400	250	12,250	6,650
TOTALS	171,450	59,700	7,434,000	1,976,625
Divers:				
Redhead	100	-	1,400	-
Ring-neck	-	-	-	-
Canvas-back	5,000	1,000	221,900	23,800
Scaup	30,000	8,000	956,900	210,350
Golden-eye	400	200	16,800	14,350
Buffle-head	50	50	350	700
Ruddy	800	300	14,000	6,300
Mergansers	500	300	23,450	21,700
TOTALS	36,850	9,850	1,234,800	277,200
GRAND TOTALS	208,300	69,550	8,668,800	2,253,825

At the close of the period, an estimated 800 ducks, including 25 mallards, 100 blue-winged teal, 25 shovellers, 150 wood ducks, and 500 scaup were present on the Calhoun Refuge. An estimated 400, including 25 mallards, 100 blue-winged teal, 25 shovellers, 100 wood ducks, and 150 scaup were present on the Batchtown Refuge.

(b) Geese:

Canada geese were on the Calhoun Refuge all winter in not less than 100 birds. It would vary from time to time in numbers. An estimated 1,200 birds used the refuge during the period. The peak concentration occurred March 21, compared to March 17 last year, both years having 800 birds for the peak. The Batchtown area had 150 Canada geese stop for a few days during the first part of April. An estimated 24,178 Canada goose days use was made at Calhoun, and 1,050 days at Batchtown.

The blue and snow geese were here in changeable numbers throughout the period. The peak concentration was lower this year, with 5,000 birds as compared with 10,000 last year. None of the blue and snow geese were observed in the Batchtown area this spring. An estimated 49,000 days use by snow geese, and 63,700 days use by blue geese was recorded at Calhoun.

(c) Swans:

None were observed on either area this period.

(d) Egrets:

None were observed on either area this period, compared with two birds observed last year.

(e) Shorebirds and Other Water Birds:

Wilson snipe are beginning to show up. Twelve of this species have been observed, compared with none last year. A few killdeer and plovers, also some sandpipers, are showing up in the area.

Blue heron are here in good numbers. There is an estimated 175 in all the areas, compared with 150 last year. They are nesting in the old nesting place on the Hagar Club area on the Missouri side of the Mississippi River below Grafton, Illinois.

2. Food and Cover:

The food conditions were very good in all the areas during this period. The closed areas had open water throughout the period, and the sharecropping fields made good feeding grounds for the mallards and the geese all winter. The big cornfields adjacent to the refuges on private lands were a big factor in feeding the ducks all winter. The ducks and geese fed throughout the Mississippi River bottoms from Alton, Illinois, to Hannibal, Missouri and up the Illinois River bottoms. Lots of ducks were observed feeding inland this winter.

B. Upland Game Birds:

No upland game birds are present on either the Batchtown or Calhoun Refuges.

There is ample food and cover present on both areas to sustain fairly high populations of these birds in event any should become established in the areas. The high water in the spring discourages upland game from using the bottomlands.

C. Big Game Animals:

No big game animals are present on either area.

D. Fur Bearers:

(a) Muskrat:

The muskrat population has not changed much from last year. About the same signs are observed as last year. Not many were taken by trappers last fall. Perhaps if we have low water this spring there might be some increase over last year.

(b) Mink:

The mink population is a little better this spring. A few more signs have been observed than last year. The low water in the pools might be the factor of this species coming back to the bottoms. It would appear that they are increasing some.

(c) Skunk:

No skunk sign has been noted on either area this spring.

(d) Beaver:

Beaver are increasing on all the islands on the Mississippi and Illinois Rivers. More timber is being cut by them each year. An estimated 40 beavers were caught on the two rivers last fall by Illinois trappers. Not many trappers seem to go for them. The low price most likely keeps them from trapping this species.

(e) Otter:

No otter sign has been seen on either area.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development:

Several steel posts with signs that are usually damaged by high water were taken up on the Calhoun Refuge. No reconditioning of fencing has been done ar that will be done after the high waters.

VI. PUBLIC RELATIONS

B. Refuge Visitors:

Superintendent Steele was here the first part of February and the latter part of April. Agent Conover was here, but the Refuge Manager was in the field and did not see him.

E. Fishing:

Pole and line fishing started early this year. Some good catches were made in February, and boat livery men have had good business during the month of March. Some good strings of crappie and bass have been taken. All indications are that the pole and line fisherman will have a good season. The fishing pressure is getting heavier every year.

Commercial fishing was better this period as the river and lakes were open all the time. Fishermen report fair results during the period. At the present time the commercial fisherman has the market flooded.

F. Violations:

No cases were made during this period. No violations were observed, and very little reports were heard of during this period. Commercial fishermen report that it was a quiet season as far as the ducks were concerned.

Superintendent of Refuge

May 4, 1953

MAY 25 '53

WATERFOWL

Refuge Calhoun Months of January to April, 1958

WATERFOWL

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for period
I. Swans:									
Whistling swan									
II. Geese:									
Canada goose	300	1/5	800	3/21	4	4/11			1,200
Cackling goose									
Brant									
White-fronted goose									
Snow goose	200	1/3	2,000	3/21	100	4/4			3,000
Blue goose	500	1/3	3,000	3/21	200	4/4			4,000
III. Ducks:									
Mallard	70,000	1/3	150,000	2/21	26	4/30			250,000
Black duck	300	1/3	2,000	2/21	50	4/21			3,000
Gadwall	50	3/28	50	3/28	50	3/28			300
Baldpate	200	1/17	1,000	2/21	200	4/11			2,000
Pintail	1,500	1/17	15,000	2/21	100	3/28			30,000
Green-winged teal	50	1/17	500	2/14	100	4/4			800
Blue-winged teal	100	2/14	2,000	4/17	100	4/30			1,000
Cinnamon teal									
Shoveller	200	1/17	500	3/28	25	4/30			1,100
Wood duck	200	3/21	400	4/11	150	4/30			500
Redhead	100	3/14	100	3/14	100	3/21			200
Ring-necked duck									
Canvas-back	200	1/10	5,000	1/31	100	4/4			8,000
Scaup	300	1/10	30,000	3/28	500	4/30			30,000
Golden-eye	100	1/10	400	2/21	100	4/11			500
Buffle-head	50	3/28	50	3/28	50	3/28			200
Ruddy duck	300	3/7	800	4/4	100	4/21			2,000
Merganser	100	1/10	500	2/21	100	4/11			1,000
IV. Coot:	20	2/14	4,000	4/15	200	4/30			6,000

SUMMARIES

Total goose days 136,070
Total duck day use 1,000,000

Dates waterfowl counts made _____

Percent of waterfowl area covered _____

Dates brood counts made _____

Percent of area covered in brood counts _____

Total production;

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 341,600

Peak waterfowl numbers 212,300

Areas used by concentrations Swan, Gilbert, Stump, Fowler, Calhoun Point, Illinois River to Alton dam, Pool 26.

Principal nesting areas this season _____

Reported by Edward A. Davis

INSTRUCTIONS

(1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance.

(2) First seen: The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.

(3) Peak concentration: The greatest number of the species present in a limited interval of time.

(4) Last seen: The last refuge record for the species during the season concerned in the reporting period.

(5) Young produced: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.

(6) Total: Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the nature of the migrational movement.

Note: Only columns applicable to the reporting period should be used. It is desirable that the Summaries receive careful attention since these data are necessarily based on an analysis of the rest of the form.

WATERFOWL

Refuge Patchham Months January to April 1943

WATERFOWL

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for period
I. Swans:									
Whistling swan									
II. Geese:									
Canada goose	100	4/11	150	4/11	150	4/11			150
Cackling goose									
Brant									
White-fronted goose									
Snow goose									
Blue goose									
III. Ducks:									
Mallard	15,000	1/3	60,000	2/14	25	4/30			100,000
Black duck	200	1/10	400	2/14	25	4/21			800
Gadwall			50	3/25	50	3/25			50
Baldpate	200	2/14	200	2/21	200	4/4			800
Pintail	1,000	1/17	6,000	3/14	100	3/28			10,000
Green-winged teal	200	2/14	1,000	4/11	100	4/30			5,000
Blue-winged teal	100	2/25	2,000	4/16	25	4/30			2,000
Cinnamon teal									
Shoveller	100	1/24	400	4/11	25	4/30			1,000
Wood duck	100	3/21	250	4/11	100	4/30			800
Redhead									
Ring-necked duck									
Canvas-back	100	1/21	1,000	2/14	100	3/21			1,500
Scaup	200	1/10	8,000	4/4	150	4/30			10,000
Golden-eye	100	1/10	300	3/14	50	3/21			500
Buffle-head	50	3/21	50	3/28	50	3/28			100
Ruddy duck	100	3/7	300	4/4	100	4/15			1,000
Merganser	100	1/3	300	2/20	100	4/11			600
IV. Coot:	10	2/14	2,000	4/17	100	4/30			2,000

(over)

3-1750
(Sept.1950) Interior - Duplicating Section, Washington, D.C. 82449

Form NR-1

SUMMARIES

Total goose day use 1,050
Total duck day use 2,268,825

Dates waterfowl counts made _____

Percent of waterfowl area covered _____

Dates brood counts made _____

Percent of area covered in brood counts _____

Total production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 131,660

Peak waterfowl numbers 68,400

Areas used by concentrations Blackwell area, Gilead area, and Batchtown closed area to Dam 26.

Principal nesting areas this season _____

Reported by Edward A. Davis

INSTRUCTIONS

(1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance.

(2) First seen: The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.

(3) Peak concentration: The greatest number of the species present in a limited interval of time.

(4) Last seen: The last refuge record for the species during the season concerned in the reporting period.

(5) Young produced: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.

(6) Total: Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the nature of the migrational movement.

Note: Only columns applicable to the reporting period should be used. It is desirable that the Summaries receive careful attention since these data are necessarily based on analysis of the rest of the form.

3-1751
Form NR-1
(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)

Refuge Calhoun and Patoka Units Months of January to April, 1953

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
Blue heron	4	1/10	125	4/2	15	4/11				175
Grebe	20	3/25	100	4/2	30	4/11				200
II. Shorebirds, Gulls and Terns:										
Gulls	3,000	1/10	25,000	2/1	100	4/11				30,000
Terns	1,000	1/10	8,000	2/1	10	4/11				10,000

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow	Are residents all year in big numbers.				

Reported by Edward A. Davis

INSTRUCTIONS

(1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

S-1[illegible]3

WEEKLY WATERF[illegible]L CENSUS

REFUGE Calhoun

MONTHS OF January TO April, 1953

WEEKLY WATERFOWL CENSUS

Species Common Name	First Nine Weeks of Reporting Period								
	1	2	3	4	5	6	7	8	9
Swans:									
Whistling									
Trumpeter									
Geese:									
Canada	100	100	200	200	200	500		250	400
Snow	200	400	200	400	400	400		600	600
Blue	300	600	300	600	600	600		600	600
Ducks:									
Mallard	70,000	60,000	60,000	90,000	100,000	125,000	140,000	150,000	100,000
Black	300	300		300	300	1,000	2,000	2,000	1,000
Gadwall									
			200		200		500	1,000	500
Baldpate			1,500	3,000	4,000	2,000	10,000	15,000	10,000
Pintail			50				500	400	
Green-winged teal							100	100	100
Blue-winged teal			200				300	200	50
Shoveller									
Wood									
Redhead									
Ring-necked									
		200	100	200	5,000	4,000	4,000	5,000	4,000
Canvas-back		300		500	200	200	3,000	500	500
Scaup		100		200	100	100	200	400	200
Golden-eye		100		200	250	200	400	500	300
Mergansers									
Buffle-head									
Ruddy									
							20	20	20
Coot:									

3-[illegible]

[illegible]EKLY WATER[illegible]L CENSUS

REFUGE Calhoun

WEEKLY WATERFOWL CENSUS

MONTHS OF January TO April, 1953

Species — Common Name	Second Nine Weeks of Reporting Period								
	10	11	12	13	14	15	16	17	18
Swans:									
Whistling									
Trumpeter									
Geese:									
Canada	400	300	600	200	100	4			
Snow	600	600	2,000	500	100				
Blue	600	600	3,000	500	200				
Ducks:									
Mallard	50,000	10,000	5,000	3,000	1,000	2,000	300	200	5
Black	1,000	200	100	100	150	150	50	50	
Gadwall				50					
Baldpate	500	300	200	200	250	200			
Pintail	10,000	15,000	500	100					
Green-winged teal			100		100				
Blue-winged teal			500	500	100	600	2,000	1,000	100
Shoveller			400	500	500	200	100	100	25
Wood			200	200	300	400	300	200	150
Redhead		100	100						
Ring-necked									
Canvas-back	4,000	3,000	2,000	100	100				
Scaup	15,000	20,000	25,000	30,000	20,000	10,000	8,000	3,000	500
Golden-eye	100	400	200	200	100	100			
Buffle-head				50					
Ruddy	300	100	100	100	600	300	200	100	
Mergansers	400	200	200	200	100	100			
Coot:	50	500	500	1,000	2,000	3,000	4,000	2,000	200

Reported by Edward A. Davis

Form RR-1D

3-...6 WEEKLY WA...FOWL CENSUS

REFUGE Batchtown MONTHS OF January TO April, 1953

WEEKLY WATERFOWL CENSUS

Species / Common Name	First Nine Weeks of Reporting Period								
	1	2	3	4	5	6	7	8	9
Swans:									
Whistling									
Trumpeter									
Geese:									
Canada									
Snow									
Blue									
Ducks:									
Mallard	15,000	20,000	21,000	25,000	15,000	30,000	50,000	30,000	20,000
Black		200	300	200	100	200	400	200	100
Gadwall									
Baldpate							200	300	100
Pintail			1,000	500	300	500	5,000	4,000	5,000
Green-winged teal							200	200	100
Blue-winged teal									100
Shoveller				100				100	100
Wood									
Redhead									
Ring-necked									
Canvas-back				100	200	200	1,000	1,000	500
Scaup		200	200	200	200	100	1,000	300	200
Golden-eye		100	100	100	100	100	200	100	200
Buffle-head									
Ruddy									
Merganser	100	200	200	200	300	200	300	200	300
Coot:							10		50

43-126

WEEKLY WATERFOWL CENSUS

REFUGE Batchtown

MONTHS OF January TO April, 1953.

WEEKLY WATERFOWL CENSUS

Species — Common Name	Second Nine Weeks of Reporting Period								
	10	11	12	13	14	15	16	17	18
Swans:									
Whistling									
Trumpeter									
Geese:									
Canada						150			
Snow									
Blue									
Ducks:									
Mallard	8,000	5,000	4,000	500	300	400		50	25
Black	100	100	100	100	50	100	100	25	
Gadwall									
Baldpate	200	100		100	200				
Pintail	2,000	6,000	2,000	100					
Green-winged teal			200	100	100	1,000			
Blue-winged teal			300	100	200	300	2,000	500	100
Shoveller			200	100	300	400	300	100	25
Wood			100	200	250		200	100	100
Redhead									
Ring-necked									
Canvas-back	100	200	100						
Scaup	2,000	2,000	3,000	5,000	8,000	5,000	2,000	500	150
Golden-eye	200	300	200	200	100	50			
Buffle-head			50	50					
Ruddy	100	100	100	100	300	100	100		
Merganser	200	300	100	200	200	100			
Coot:	50	200	300	500	1,000	1,500	2,000	1,000	100

Reported by Edward A. Davis

Form MR-1B

3-1752
Form [illegible]R-2
(April, 1946)

UPLAND GAME BIRDS

1613

Refuge Calhoun and Ratcliffe Months of January to April, 1952

UPLAND GAME BIRDS

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total	Percentage	Hunting	For Re-stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Nothing to report under this.										

INSTRUCTIO

Form NR-2 - UPLAND GAME BIRDS.*

(1) SPECIES: Use correct common name.

(2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.

(4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.

(5) REMOVALS: Indicate total number in each category removed during the report period.

(6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.

(7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

* Only columns applicable to the period covered should be used.

3-1754
Form No. 4
(June 1945)

SMALL MAMMALS

Refuge Calhoun and Batchtown Year ending April 30, 1953

SMALL MAMMALS

(1) Species	(2) Density		(3) Removals					(4) Disposition of Furs						(5) Total Population
								Share Trapping						
Common Name	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hunting	Fur Harvest	Predator Control *	For Re-stocking	For Re-search	Permit Number	Trappers Share	Refuge share	Total Refuge Furs Shipped	Furs Donated	Furs Destroyed	
Nothing to report under this.														

* List removals by Predator Animal Hunter

REMARKS:

Reported by Edward A. Davis

INSTRUCTIC.

Form NR-4 - SMALL MAMMALS (Include data on all species of importance in the management program; i. e., muskrats, beaver, coon, mink, coyote. Data on small rodents may be omitted except for estimated total population of each species considered in control operations.)

(1) SPECIES: Use correct common name. Example: Striped skunk, spotted skunk, short-tailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan.)

(2) DENSITY: Applies particularly to those species considered in removal programs. Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottom land hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) REMOVALS: Indicate the total number under each category removed since April 30 of the previous year, including any taken on the refuge by Service Predatory Animal Hunter. Also show any removals not falling under headingslisted.

(4) DISPOSITION OF FUR: On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market, including furs taken by Service personnel. Total number of pelts of each species destroyed because of unprimeness or damaged condition, and furs donated to institutions or other agencies should be shown in the column provided.

(5) TOTAL POPULATION: Estimated total population of each species reported on as of April 30.

REMARKS: Indicate inventory method(s) used, size of sample area(s), introductions, and any other pertinent information not specifically requested.

116007

1953

CALHOUN AND BATCHTOWN REFUGES
NARRATIVE REPORT
MAY, JUNE, JULY, AUGUST, 1953

I. GENERAL

A. Weather Conditions:

This was a warmer summer than in 1952, with maximum temperatures higher in May, June, and August. July had the same reading as last year. Minimum temperatures were higher in every month except June which was two points lower than a year ago. During most of the period the weather was hot and dry.

Relative readings are shown below:

Month	Year	Maximum	Minimum	Precipitation
May	1952	93	43	2.03
	1953	96	44	1.78
June	1952	104	60	2.04
	1953	105	58	2.29
July	1952	102	61	4.11
	1953	102	64	.78
August	1952	95	53	2.61
	1953	101	62	.50
			Total 1952	10.79
			Total 1953	5.35

B. Water Conditions:

Water stages in pool 26 during this period was near pool stage most of the time. No high water was experienced during the period. Normal pool stages in this area made conditions good for sago pondweed and American pondweed. Nearly everybody was pleased with pool levels on the Illinois River this period. In pool 25 there was a drawdown nearly all the time during the period, but this was a help in producing the best crop of smartweed we have ever had in this area.

Fluctuation in pool levels due to dam manipulation was not bad in pool 26, and there was no drawdown during the period. A comparison of pool levels in pool 26, compared to the same period in 1952, is shown in the following table:

Month	Year	High	Low	Difference
May	1952	24.6	14.9	9.7
	1953	16.2	15.3	.9
June	1952	16.2	14.8	1.4
	1953	16.1	15.0	1.1
July	1952	16.0	14.8	.7
	1953	16.1	15.4	.7
August	1952	15.8	14.9	.9
	1953	15.9	15.3	.6

II. WILDLIFE

A. Migratory Birds:

1. Populations and behavior:

(a) Waterfowl:

During the first part of May a few mallards, blue-wing teal, and scaup were observed in the area, but by the middle of the month they had departed, except wood duck and a few mallards that nested in the area.

The wood duck broods showed a big decrease this year compared with last year. The brood count for this year was 54 broods, while last year 103 broods were observed.

Eight broods of mallards were observed this year compared with the same last year. One brood of blacks was observed compared to none last year. One brood of scaup was observed, same last year.

A comparison of 1952 and 1953 is shown in the following table.

Species	Broods	Young	Year
Wood duck	54	532	1953
	103	828	1952
Mallards	8	64	1953
	8	64	1952
Black	1	8	1953
	0	0	1952
Scaup	1	8	1953
	1	8	1952
Total	60	602	1953
	112	900	1952

No new ducks have been observed yet coming into area, compared with a few at this time last year.

(b) Geese:

By the first of May all geese had left the area. On June 25 two Canada geese were observed on Swan Lake and soon departed for places unknown.

(e) Swans:

No swans were observed during the period.

(d) Egrets:

Egrets started to come into the area the first part of May and used most areas during the period. About 3,200 birds used the area compared with 4,000 last year.

(e) Shorebirds and other Water Birds:

Killdeer, plover, and yellow-legs are observed in most of the two refuges, but no increase over last year was observed. A few Wilson snipe were observed but there was no change in this species.

Blue heron showed an increase this year, with about 700 birds using the refuges this year, compared with about 200 last year.

2. Food and Cover:

Food and cover is the best in several years in both areas. In pool 26 sago pondweed and American pondweed made a big crop due to absence of high water to move any of this crop out. Cutgrass made a good growth in all margin areas. Sagittaria is much better than last year and has made a big growth. Smartweed is good in pool 26 with the Glades full of it. Wild millet is very good in most of the marginal areas.

The Batchtown area looks wonderful. Smartweed made the biggest growth in years. Wild millet looks very good in this area. Sago pondweed is abundant here too. The cornfields adjacent to the refuge are very good. This should be a paradise for the ducks this fall. Sagittaria made a good growth in the Batchtown areas and Gilead club area, and the Blackwell area looks the best since we put the refuge in. Smartweed is outstanding.

B. Upland Game Birds:

None observed on refuge lands.

Very little habitat for upland game birds is available.

C. Big Game Animals:

None observed this period.

D. Fur Animals:

(a) Muskrat:

Muskrat signs are about the same as last year. We do not believe we have any increase in this species, and the habitat is limited in this area.

(b) Mink:

Mink have increased some in the bottoms as water conditions are better. A few more signs have been observed than last year, and fishermen say we have more than last year.

(c) Skunk:

No sign has been observed on refuge lands.

(d) Beaver:

Beaver signs have increased on most of the islands along the Mississippi River and the Illinois River. This species is on the increase.

(e) Otter:

None observed here.

(f) Raccoon:

Raccoon sign is plentiful through the bottoms in pools 26 and 25. All indications are that this species is still on the increase. Along the marginal areas you can find solid paths of raccoon tracks.

(g) Foxes:

Foxes are increasing in this area according to sign observed and reports from fox hunters and farmers living close to refuge areas.

E. Predaceous Birds:

Red-tailed hawks are observed in most of the bottomlands. They are about the same as last year.

Turkey vultures are numerous in both areas. Sixty birds were observed this period, compared with 50 last year.

F. Fish:

Fish are plentiful in all lakes and both rivers. This was a hot summer and fishing pressure was cut down by the heat. Fishermen report there are plenty of fish in all the areas.

They expect good fishing when the weather gets cooler.

Commercial fishermen report good results during the period. A good run of cat fish was caught. Prices were very good for fish here.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development:

All boundary lines have been gone over once. Gilbert Lake, Swan Lake, Batchtown, and Portage Island have been gone over the second time and are ready for the hunting season. The Gilead Club and the Blackwell areas will be done as soon as boundary line data is available.

The 21 foot boat was painted during the period and put in the water, the Government car was polished, and the small boat was painted on the bottom.

B. Plantings:

4. Cultivated Crops:

All of the ten permittees except Mr. Ernest Dabbs got their crops in. Dabbs had trouble with the dry weather and was unable to get his planted. Some of the other permittees had to change their crops from corn to beans on account of the dry weather during the planting season. There is prospect of good crops.

IV. ECONOMIC USE

A. Grazing:

Nothing to report under this.

B. Haying:

Nothing under this.

C. Fur Harvest:

Nothing under this.

D. Timber Removal:

Nothing under this.

E. Cabin Sites:

Nothing under this.

VI. PUBLIC RELATIONS

A. Recreational Use:

The number of people that used the area for swimming and boating was larger than last year. The weather was warmer during most of the period and more people came out to get away from the heat, the boat livery operators for fishermen report their business not so good as last year, as it was too hot for fishermen to go out. There were better water levels than last year.

The pleasure boating on the Illinois river and Mississippi increased this year over the same period last year. All boat harbors are improving their places to take care of the increased demand.

B. Refuge Visitors:

Mr. D. O. Rittinger and Mr. Geo. Arthur, State Biologist, worked in the area during the period.

C. Refuge Participation:

Attended conference meeting at Winona, Minn. June 10 and 11.

Attended conference at Pere Marquette Park with Illinois and Missouri wardens and U. S. Agents, June 17, 1953.

D. Hunting:

Nothing to report under this.

E. Fishing:
Sport:

Sport fishing was good during May and part of June, but the weather was too hot through July and August. Sport fishing fell down during this period compared with the same time last year. Bluegills were the best fishing during the period. Crappies did not bite during the hot weather, but fishermen have hope of good crappie fishing after the weather gets cooler.

Commercial:

Commercial fishing during this period was about the same as last year. Information reported by the good fishermen in the area report a better catfish run than last year. The price of fish is higher than last and the demand is good.

F. Violations:

Nothing to report under this.

VII. OTHER ITEMS

Nothing to report under this.

Superintendent of Refuges

September 1, 1953.

(Sgd.) R. W. Burwell

September 15, 1953

3-1750
Form NR-1
(Rev. Ma[redacted] 1953)

WATERFOWL

REFUGE Calhoun MONTHS OF May TO August, 1953

(1) Species	(2) Weeks of reporting period: 1	2	3	4	5	6	7	8	9	10
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada		12						2		
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard	200	100	50	18	24	24	24	24	24	24
Black										
Gadwall										
Baldpate										
Pintail										
Green-winged teal										
Blue-winged teal	300									
Cinnamon teal										
Shoveler										
Wood	100	100	100	112	120	150	170	170	170	170
Redhead										
Ring-necked										
Canvasback			50							
Scaup	200	100	2	2	10	10	10	10	10	10
Goldeneye										
Bufflehead										
Ruddy										
Other										
Coot:	300									

Int. Dup. Soc.,
Wash., D. C. 37944

3-7150a
Cont. NR-1
(Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE Calhoun MONTHS OF May TO August, 1953

WATEREOWL

(1) Species	(2) Weeks of reporting period: 11	12	13	14	15	16	17	18	(3) Estimated waterfowl days use	(4) Production: Broods seen	Estimated total
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada											
Cackling											
Brant											
White-fronted											
Snow											
Blue											
Other											
Ducks:											
Mallard	24	24	24	24	24	24	24	24		3	24
Black											
Gadwall											
Baldpate											
Pintail											
Green-winged teal											
Blue-winged teal					150						
Cinnamon teal											
Shoveler											
Wood	192	192	192	192	192	192	192	192		24	192
Redhead											
Ring-necked											
Canvasback											
Scaup	10	10	10	10	10	10	10	10		1	8
Goldeneye											
Bufflehead											
Ruddy											
Other											
Coot:											

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production
Swans			none
Geese	98	12	none
Ducks	31382	800	226
Coots	2100	300	none

SUMMARY

Principal feeding areas Stump, Calhoun point, swan lake Gilbert lake.

Principal nesting areas Johnson Island, Big Island, Calhoun Point, Taylor Lake, Swan Lake.

Reported by Edward A. Davis

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

(1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.

(2) Weeks of Reporting Period: Estimated average refuge populations.

(3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.

(4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.

(5) Total Days Use: A summary of data recorded under (3).

(6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.

(7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C. 37944
1953

3-1750
Form NR-1
(Rev. Ma[illegible] 1953)

WATERFOWL

REFUGE Batchtown MONTHS OF May TO August, 1953

(1) Species	(2) Weeks of reporting period: 1	2	3	4	5	6	7	8	9	10
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada										
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard	100	25	20	10	40	40	45	45	45	45
Black	2	2	2	2	2	2	2	2	10	10
Gadwall										
Baldpate										
Pintail										
Green-winged teal										
Blue-winged teal	200									
Cinnamon teal										
Shoveler										
Wood	100	80	60	80	100	100	100	150	150	200
Redhead										
Ring-necked										
Canvasback										
Scaup	100									
Goldeneye										
Bufflehead										
Ruddy										
Other										
Coot:	200									

Int. Dup. Sec.,
Wash., D. C. 37944

3-7150a
Cont. Ma-1
(Rev. Ma[illegible] 1953)

WATE[illegible]OWL
(Continuation Sheet)

REFUGE Batchtown MONTHS OF May TO August, 1953

(1) Species	(2) Weeks of reporting period: 11	12	13	14	15	16	17	18	(3) Estimated waterfowl days use	(4) Production: Broods seen	Estimated total
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada											
Cackling											
Brant											
White-fronted											
Snow											
Blue											
Other											
Ducks:											
Mallard	45	45	45	45	45	45	45	45		5	40
Black	10	10	10	10	10	10	10	10		1	8
Gadwall											
Baldpate											
Pintail											
Green-winged teal											
Blue-winged teal											
Cinnamon teal											
Shoveler											
Wood	245	242	245	245	245	245	245	245		30	242
Redhead											
Ring-necked											
Canvasback											
Scaup											
Goldeneye											
Bufflehead											
Ruddy											
Other											
Coot:											

(over)

	(5) Total Days Use	(5) Peak Number	(7) Total Production
Swans			
Geese			
Ducks	11615	602	291
Coots	1400	200	none

SUMMARY

Principal feeding areas Batchtown closed area, Gilead Club area, Blackwell area.

Principal nesting areas Gilead Club area, Blackwell area, Batchtown closed area.

Reported by Edward A. Davis

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

(1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.

(2) Weeks of Reporting Period: Estimated average refuge populations.

(3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.

(4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.

(5) Total Days Use: A summary of data recorded under (3).

(6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.

(7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C. 37944
1953

3-1751
Form NR-4
(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)

Refuge Calhoun Months of May to August 1953

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
Egrets	2	5/4	1500	8/5	1500	8/5				2000
Herons	10	5/4	250	7/23	20	8/13				300
II. Shorebirds, Gulls and Terns:										
Gulls	1000	5/5	1000	5/5	100	5/16				3,000
Terns	800	5/5	800	5/5	50	5/16				1,000

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow	Lots of crows here the year around.				

Reported by Edward A. Davis

INSTRUCTIONS

(1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

3-1751
Form NR-
(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)

Refuge Batchtown Months of May to August 1953

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
Egrets	8	5/5	1000	8/5	30	8/5				1200
Herons	20	5/5	200	8/5	25	8/13				400
II. Shorebirds, Gulls and Terns:										
Gulls	500	5/5	500	5/5	100	5/20				1000
Terns	300	5/5	300	5/5	50	5/20				500

(over)

(1)	(2)	(3)	(4)	(5)		(6)
III. Doves and Pigeons:						
Mourning dove						
White-winged dove						
IV. Predaceous Birds:						
Golden eagle						
Duck hawk						
Horned owl						
Magpie						
Raven						
Crow	Lot of crows here the year around.					

Reported by Edward A. Davis

INSTRUCTIONS

(1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

3-1752
Form NR-2
(Apr[illegible]1946)

UPLAND GAME BIRDS

1613

Refuge Calhoun and Batchtown Months of May to August, 1953

UPLAND GAME BIRDS

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total	Percentage	Hunting	For Re-stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Nothing to report under this.										

INSTRUCTI

Form NR-2 - UPLAND GAME BIRDS.*

(1) SPECIES: Use correct common name.

(2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.

(4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.

(5) REMOVALS: Indicate total number in each category removed during the report period.

(6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.

(7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

* Only columns applicable to the period covered should be used.

CALHOUN AND BATCHTOWN REFUGES
NARRATIVE REPORT

SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER, 1953

1. GENERAL

A. Weather Conditions:

The maximum temperature in September, October, and December was higher than during the same time last year. However, the November, 1952 maximum temperature was higher by two degrees. The minimum temperature was higher in 1953 in every month except December which showed 15 degrees colder than last year.

Relative readings are shown below:

Month	Year	Maximum	Minimum	Precipitation
September	1952	94	41	.97
	1953	104	43	.70
October	1952	94	24	.57
	1953	95	36	1.59
November	1952	78	17	2.12
	1953	76	19	.74
December	1952	61	20	.59
	1953	62	5	.52
			1952 TOTAL	4.12
			1953 TOTAL	3.55

B. Water Conditions:

The river stage in Pool 26 was more nearly normal this year than last, although some fluctuations occurred. During portions of the period, the river was below normal pool, resulting in low water in marginal areas. This low water on the margins rendered some areas unsuitable for hunting. The Diamond Island Club, for instance, was out of existence this fall because there was no water near their blinds. The Godar Swamp area, too was almost completely dry, and no hunting could be done there.

Water conditions at Batchtown were ideal. Nearly normal pool levels occurred throughout the fall, providing plenty of water in the shooting areas. Because of high stream flow during the summer, the gates at Dam 25 were open for a large part of the summer. This resulted in exposure of mud flats in the Batchtown area, and on these exposed flats extremely dense beds of smartweed came in. When the dam was closed in early fall, it put water over these smartweed beds, creating ideal feeding conditions for ducks, and making the Batchtown area more favorable than it has ever been.

A comparison of pool levels in Pool 26, with 1952 is shown in the following table.

Month	High	Low	Difference	Year
September	15-4	14-7	.4	1952
	15-3	14-7	.6	1953
October	15-1	14-8	.3	1952
	15-2	14-6	.6	1953
November	15-4	14-7	.7	1952
	15-4	14-8	.6	1953
December	15-1	14-5	.6	1952
	15-4	14-7	.7	1953

Maximum monthly variation in 1953 was .7 with the same variation in 1952.

C. Fires:

No fires occurred on refuge areas.

II. WILDLIFE

A. Migratory Birds:

1. Populations and Behavior

a. Waterfowl:

Ducks were present in fair numbers when the period opened, with 1,550 at Batchtown and 1,900 at Calhoun Refuge. The numbers started increasing as the period opened, and continued to build up steadily throughout the fall.

In the Batchtown Refuge, a small peak of 57,700 birds was reached the week ending October 17; but the numbers dropped to 34,440 the following week before bounding back to 61,100 the week ending October 31. Another drop then occured to 38,500 the week ending November 7, and then built up rapidly again. The week ending November 14 had 305,300 ducks present at Batchtown, and the peak of 1,001,800 was reached the next week. The week ending November 28 showed a drop to 652,900, but numbers increased to 753,900 birds the following week, and to 808,500 the week ending December 12. A big drop then occurred, and for the next two weeks, only 161,500 birds remained in the area. As the period closed, 155,300 birds were still present.

Populations at Batchtown were largely mallards and pintails. Mallards were above 150,000 from November 7 to the end of the period, with the peak of 750,000 being recorded the week ending December 12. As the period closed, 150,000 mallards were still present. Pintails hit high numbers earlies in the season than did mallards, with 40,000 observed the week ending October 10. From that date until the week ending December 12, this species remained near 50,000 birds, and peaked at 300,000 the week ending November 21. At that time, there were 700,000 mallards present also, and the fall peak of 1,001,800 ducks occurred for the area. Only 2000 pintails remained on the Batchtown Refuge at the close of the period.

This is the first year that the Batchtown Refuge peaked higher or had more days use than the Calhoun Refuge. The reason for the change this year can be attributed to the enormous amount of smartweed available on the Batchtown Refuge this fall. It was not until cold weather started closing the Batchtown Refuge that numbers on Calhoun reached anything like normal numbers.

While last year the Batchtown peak occurred before the hunting season opened, this year it hit in the middle of the shooting season.

On the Calhoun Refuge, 1,900 ducks were present as the period opened. This number built up steadily until the week ending November 21, when there were 175,000 ducks present. This was the same week that the season peak occurred at Batchtown. However, numbers at Calhoun dropped to 99,800 the following week; to 52,400 the next; and the fall peak of 302,000 birds was reached the week ending December 19. At that time, the numbers at Batchtown had dropped from 808,000 ducks to only 161,500. This reduction at Batchtown was the result of cold weather, and the ducks merely moved "over the hump" to Calhoun where there was still plenty of open water. As the period closed, 201,200 birds still remained at the Calhoun Refuge, while only 155,300 were at Batchtown.

On the Calhoun Refuge, as at Batchtown, mallards made up the bulk of the ducks. The mallard peak at Calhoun was 300,000 mallards during the same week as the fall total peak of 302,000 occurred. Not even pintails were common at Calhoun this fall, for the species peaked at only 3,000 birds.

A comparison of peak concentrations on the two Refuges for the past four years is shown in the following table:

	1950	1951	1952	1953
Batchtown	79,400	49,400	192,000	1,001,800
Calhoun	150,000	321,000	478,000	303,000

This fall, there was a total of 38,720,535 duck days use made of the combined areas, of which 29,907,500 days use was made of Batchtown and 8,813,035 days use made of Calhoun Refuge. This represents an increase of 501% on the Batchtown Refuge and a decrease of 25% on the Calhoun Refuge. For the combined refuges however, there was an over-all increase of 133%.

A comparison of duck day use for the two refuges for the 1952 and 1953 seasons is shown in the following table:

DUCK DAY USE TABLE

	1952	1953	Change
Batchtown	4,972,128	29,907,500	501% increase
Calhoun	11,611,705	8,813,035	25% decrease
TOTAL	16,583,835	38,720,535	133% increase

Hunting pressure was high in the vicinity of both refuges. However, this fall for the first time, a State Managed Public Shooting Program was in effect over a large portion of the shooting area in the vicinity of Calhoun Refuge.

Because of the extremely dense cover in the vicinity of Batchtown, together with water levels which would not permit wading to recover birds, it is felt that crippling losses there were quite high. In the vicinity of the Batchtown Refuge, crippling data indicate that there was 1 duck lost for each 1.8 ducks bagged on the State Managed Area; 1 lost for each 1.74 bagged at the Massey Club; and 1 lost for each 7.11 bagged at the Batchtown Sportsmen's Area. This is an over-all loss for the pool of 1 duck for each 3.18 ducks bagged, or a crippling loss of 31.44%.

At the Calhoun Refuge, crippling losses showed 1 duck lost for each 4.73 ducks bagged in the Stump Lake Area; 1 duck lost for each 8.87 ducks bagged at Calhoun Point; and an over-all loss forthe area of 1 duck lost for each 7.10 ducks bagged. This represents a loss of 14.08% for the Calhoun Area.

Data were obtained on 5,930 hunters in the Batchtown Area with 6,061 ducks, for an average of 1.56 ducks per day; and from 6,185 hunters in the Calhoun Area with 3,657 ducks for an average of .59 ducks per day.

In the Batchtown Refuge, ducks did not leave to feed in cornfields until late in the season, and then not to any extent. Food supplies in the refuge afforded adequate nourishment for the large numbers of ducks resting there. Ducks from Calhoun Refuge however, fed cornfields regularly, although their flight was later because of the additional hour of shooting provided this fall.

Coot peaked at 10,000 on the Batchtown Refuge the week of November 7; and used the area a total of 803,100 days. At Calhoun Refuge, the peak of 8,000 was reached the same week and total use was 145,600 days. Combined total use of both areas was 448,700 days.

(b) Geese:

Very few geese used the Batchtown Refuge this fall, and only 385 days use was recorded. The peak number of 35 Canadas was reached in this area the week ending December 12.

On the Calhoun Refuge, however, much more use was made by geese. A total of 223,440 goose days use was recorded, with a peak of 3,100 of all species the week ending October 31.

As the period opened, 60 Canada geese were observed on Calhoun Refuge. This number built up to the peak of 700 the week ending November 28. As the period closed, 500 were still present.

Blues and snows both made their appearance on Calhoun the week ending October 10, when 200 of each species were seen. Snow geese peaksd at 1,100 birds the week ending November 28. Blue geese peaked at 2,000 the week ending October 31.

The peak of blues and snows last year was 4,000, compared to this year.

All three species of geese used the Gilbert Lake portion of Calhoun Refuge more this year than usual. Canada geese totalled 48,440 days use on Calhoun Refuge this fall; while snows were present 75,600 days and blues were there 99,400 days.

It is estimated that 60 Canada geese and 100 blues and snows were killed in the vicinity of Calhoun Refuge this fall.

(c) Swans:

None were observed on either area this period.

(d) Egrets:

Egrets were numerous all summer and early fall, but were gone a few days after the duck season opened. The peak concentration was on September 15, with 2,500 present compared to 2,000 last year, when the peak was on September 15.

(d) Shorebirds:

Wilson snipe showed an increase again this year, with an estimated 500 using the Batchtown Refuge compared to 100 last year; and 500 using Calhoun Refuge compared to 200 in 1952.

Killdeer showed a small increase, with an estimated 1200 on both refuges compared to 1100 a year ago.

2. Food and Cover:

Food conditions in Pool 26 were fair this fall. There was a lot of sago pondweed present in the water areas. Good marginal growth developed during the summer, but this fall, the water had dropped over large portions of the margins in the pool, and so this marginal food was not available to ducks. This did not seem to have an adverse effect on early fall waterfowl use, however, as there were ample cornfields to feed in.

Food conditions in Pool 25 were by far the best they have ever been. High stream flow during the summer resulted in the gates at Dam 25 being held partly open, with the result that large expanses of mud flats were exposed throughout most of the growing season. On these mud flats, extremely heavy smartweed together with some millet came in. This growth was very rank and heavy, and so tall that it was almost impossible to traverse. A very heavy seed crop developed over the entire area. This growth was so dense that boat paths had to be cut through before it was possible to get around in the hunting areas.

Reduced stream flow in late summer caused the Corps to close the gates at the dam, flooding the very dense smartweed growth with from a few inches to a few feet of water, and created ideal conditions for waterfowl. This was one of those things one had to see to appreciate, for it would be impossible to visualize what conditions were like unless it was seen first hand. Smartweed growth in the refuge was so heavy that it was impossible to flush all the ducks from it, and made estimating difficult.

The extremely favorable conditions at Batchtown were contributing factors in the decline in ducks at Calhoun, for birds concentrated in this heavy feed and cover more than at any time in the past. Sufficient food was produced at Batchtown to provide even for the million birds which concentrated there, and certainly was a contributing factor in the enormous duck days use made of the refuge.

B. Upland Game Birds:

No upland game birds are present on either the Batchtown or Calhoun Refuges.

There is ample food and cover present on both areas to sustain fairly high populations of these birds in event any should become established in the areas. There has been no high water for two years and we have hopes that upland game birds will get started on the refuges.

C. Big Game Animals:

No big game animals are present on either area.

D. Fur Bearers:

(a) Muskrat:

The muskrat population looks a little better this year due to the low water the past two years. The trapping pressure is not too bad this year. Very few trappers were observed after muskrats this year. The poor price is probably the reason for lack of trapping pressure.

(b) Mink:

Trapping pressure was also light on mink.

(c) Skunk:

No skunk signs have been noted on either area this fall.

(d) Beaver:

Beavers are increasing in the refuges and almost all islands have beaver signs on them. Several new houses have been observed this year. Illinois is to have a beaver season in February which will probably cut them down some.

(e) Otter:

No otter signs have been seen on either area.

(f) Raccoon:

Raccoon are plentiful in all the bottom lands. This species is increasing in the closed areas and all the open areas. Trapping pressure on this species is low, and very few trappers or hunters go out for them because the price is so low.

(g) Foxes:

Foxes are plentiful throughout the bottoms and farmers report there are plenty of foxes on the upland. The County is paying a bounty but this does not seem to hold them down. Foxes are increasing in the closed areas.

E. Predaceous Birds:

Eagles are numerous in the Batchtown and the Calhoun Refuges. It is estimated that there are 100 eagles in the two areas, compared to 50 birds last year.

Hawks are common in all the areas. Red-tailed hawks and marsh hawks are in the majority. Several were observed killed by hunters the past duck season.

Owls are common in all the timber areas, and appear to be on the increase.

F. Fish:

Game fish are plentiful in almost all lakes in the Batchtown and the Calhoun Refuges, but commercial fishermen report that rough fish are down due to lakes silting in on Calhoun Refuge.

III. REFUGE DEVELOPMENT AND MAINTENANCE

B. Plantings:

4. Cultivated Crops:

Ten share-cropping permits were issued, and the results are shown in the table below.

	Permit No.	Acres	Crop	Ave. Per Ac.	Shares Farmer	Shares Govt.	Surplus Sold by Govt.
W. F. Duncan	361	26	corn	51	900	450	
Harry C. Bimslager	362	30	corn	29	656	218½	$284.05
Henry Weigel	363	20	corn	14	210	70	91.00
John Held	364	8	corn	16	90	45	
Joe Navarre	365	6	corn	24	111	57	48.10
Robert LaMarsh	366	6	corn	40	160	80	
Howard Winshell	367	10	corn	76	570	190	247.00
Duff Fry	368	10	corn	40	267	133	
Earnest Dabbs	369	10	none - drouth ruined crop				
August Toppmeyer	370	10	beans	19	144	48	119.52
TOTAL REVENUE TO GOVERNMENT						706 &	$739.67

VI. PUBLIC RELATIONS

A. Recreational Uses:

Boating and picnicking were extensively done throughout the fall on both the Illinois and Mississippi Rivers. A considerable number of people were looking for pecans this fall and this caused some trespass on the refuge areas as there was a fair crop of nuts.

B. Refuge Visitors:

Mr. Frank Bellrose from the Illinois Natural History Survey was here November 9, 25, and December 18.

Dr. W. E. Green, biologist for the Upper Mississippi Refuge, spent November 11 to 16 helping to secure bag check data.

Mr. Kubichek from the Washington office spent November 18 to 22 taking pictures in the Batchtown Refuge.

Mr. George Winslow from the Winona office spent from December 1 to 10 helping check hunters and watching refuge areas.

C. Refuge Participation:

The Refuge Manager attended an evening meeting at Grafton, Illinois with duck hunters on October 30th, and attended conference with War Department officials at St. Louis on November 2nd in company with Superintendent Steele and Regional Supervisor Gillett. This meeting was to be between the Service, the Corps of Engineers, the Illinois Conservation Department, and local duck hunters to discuss proposed management of hunting. However, representative from the State of Illinois failed to appear for the meeting.

D. Hunting:

Heavy hunting pressure was found in the Batchtown Area this fall, and data were obtained from three different areas; the Massey Club, the State Public Shooting Area; and the Batchtown Sportsmen's Area.

A total of 3,930 hunters in the Pool reported taking 6,061 ducks, for a daily average of 1.56 ducks per hunter day. Checks were obtained as follows:

AREA	HUNTERS	DUCKS	AVERAGE
Massey Club	584	665	1.13
State Managed Area	1904	1801	.94
Sportsmen's Area	1442	3597	2.49
TOTAL	3930	6061	1.56

It will be noted that by far the best hunting was obtained by the Batchtown Sportsmen's Club, with their average of 2.49 ducks per day. This was almost as good as last year, when the average was 2.54 ducks per day.

The Massey Club averaged 1.17 ducks per day a year ago, which was slightly higher than the 1.13 average this year.

On the State Managed Area, however, the success rate was up this year, with .94 ducks per day compared to .72 ducks per day in 1952.

Mallards comprised 82.63% of all ducks killed in the pool, while pintails were a poor second with 8.6%; and blue-winged teal were third with 2.74%.

Duck hunters in Pool 26 did not have as good shooting as those in Pool 25. Ducks did not work as well for the hunters as in past years. High shooting was the most talked about feature of the season.

The Diamond Island Club did not operate this fall because of low water which left their hunting area high and dry.

For the first time, the State of Illinois put managed hunting into effect this fall in Pool 26. All blinds were staked out by the State, and were at least 150 yards apart. Ridge running and stump jumping was eliminated. No fees were charged for hunting in Pool 26, although hunters had to register for blinds, and report through a checking station to report their kills.

Data were obtained on this voluntary basis from 6,185 hunters who reported killing 5,652 ducks for a daily average of .59 ducks per day. The pool average last fall, when Diamond Island was operating, was 1.02 ducks per day for the pool. Combined Stump Lake-Calhoun Point data in 1952 showed an average of .93 ducks per day, which was higher than the .59 average this year.

River hunting was not too good this fall as the weather was too warm most of the season.

On the Bob Meyers farm, hunters reported killing 125 geese and 200 ducks, but no data are available on daily success rates.

As pointed out previously, crippling loss was quite high in Pool 25, with an estimated 31.44% loss; while in Pool 26, the crippling loss is estimated at 14.08%.

Data on period kill, show that in Pool 25, there was even a smaller percentage of hunters taking ducks the last hour than in Pool 26. Percentage of ducks taken, and the time of day the ducks were killed, is shown in the following table:

Percentage of Kill

Pool	AM	PM less last hour	All day less last hour	Last Hour
25	25.56	24.34	49.06	1.04
26	43.70	6.10	48.27	1.92

Thus it appears that the additional hour did not materially

contribute to increased kill. It should be pointed out that this data is based on a total of 6,056 ducks checked in Pool 25, and 3,652 ducks checked in Pool 26; so the sample is relatively large.

The following tables show hunter success and other data for the 1953 hunting seasons in Pools 25 and 26.

E. Fishing:

Pole and line fishing was pretty good this year, but fishermen say that it was not as good as last year. Several good catches were observed during the period; mostly crappies. A good number of bluegill and bass were taken during the early part of the period.

Commercial fishing was down some according to reports of operators in that business. The catfish run was better this fall than last year. Commercial fishermen report good catches of cat.

F. Violations:

Two cases were settled in state courts for hunting from a motor boat in the Batchtown closed area. They were fined $100 and costs of $4 each. The sanctuaries were respected in both areas this fall.

Bartlett W Foster

BARTLETT W. FOSTER
CLERK, ACTING IN CHARGE

January 29, 1954

D B Jansen

DUCK KILL SUMMARY - Pool 25

	Massey Club	Batchtown State Area	Batchtown Sportsmen	POOL 25 TOTAL
No. hunters checked	584	1904	1442	3930
No. ducks checked	663	1801	3597	6061
Average ducks per day	1.13	.94	2.49	1.56

Species	No.	%	No.	%	No.	%	No.	%
Mallard	563	84.91	1538	85.39	2907	80.82	5008	82.63
Black	8	1.20	2	.12	1	.03	11	.18
Gadwall	-	-	2	.12	-	-	2	.03
Baldpate	5	.76	8	.44	93	2.58	106	1.75
Pintail	56	8.45	100	5.55	365	10.12	521	8.60
Green-winged teal	12	1.81	20	1.11	34	.95	66	1.09
Blue-winged teal	18	2.72	17	.94	131	3.64	166	2.74
Shoveller	-	-	22	1.22	-	-	22	.36
Wood duck	1	.15	29	1.61	18	.50	48	.79
Redhead	-	-	5	.27	2	.06	7	.12
Ring-neck	-	-	3	.17	18	.50	21	.35
Canvas-back	-	-	1	.06	5	.13	6	.09
Scaup	-	-	54	3.00	23	.65	77	1.27

Hunters took ducks as follows:

4 (limit)	57	9.76	111	5.83	532	36.89	700	17.81
3	52	8.90	142	7.45	231	16.02	425	10.81
2	91	15.59	239	12.55	247	17.14	577	14.68
1	97	16.61	455	23.79	282	19.56	834	21.17
0	287	49.14	959	50.38	150	10.40	1396	35.53

DUCK KILL SUMMARY - Pool 26

	Stump Lake	Calhoun Point	POOL 26 TOTAL
No. hunters checked	4219	1966	6185
No. ducks checked	2224	1428	3652
Average ducks per day	.52	.71	.59

Species	No.	%	No.	%	No.	%
Mallard	1654	74.38	1321	92.51	2975	81.47
Black	22	.98	11	.77	33	.90
Gadwall	29	1.30	5	.35	34	.94
Baldpate	68	3.05	4	.28	72	1.97
Pintail	89	4.00	8	.56	97	2.66
Green-winged teal	145	6.52	8	.56	153	4.19
Blue-winged teal	55	2.48	14	.98	69	1.89
Shoveller	26	1.17	5	.35	31	.85
Wood duck	124	5.58	43	3.01	167	4.57
Redhead	2	.09	-	-	2	.05
Ring-neck	2	.09	-	-	2	.05
Scaup	8	.36	9	.63	17	.46

Hunters took ducks as follows:

4 (limit)	78	1.85	88	4.47	166	2.68
3	100	2.37	99	5.04	199	3.22
2	307	7.28	167	8.49	474	7.66
1	998	23.65	445	22.64	1443	23.33
0	2736	64.85	1167	59.36	3903	63.11

3-1750
Form NR-[illegible]
(Rev. Ma[illegible] 1953)

WATERFOWL

REFUGE [illegible] MONTHS OF September TO December, 19[illegible]

(1) Species	(2) Weeks of reporting period: 1	2	3	4	5	6	7	8	9	10
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada										
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard	1[illegible]	1[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Black								[illegible]	[illegible]	[illegible]
Gadwall								[illegible]	[illegible]	[illegible]
Baldpate					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pintail			1,000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Green-winged teal					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Blue-winged teal	1,000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Cinnamon teal										
Shoveler								[illegible]	[illegible]	[illegible]
Wood	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Redhead									[illegible]	[illegible]
Ring-necked										[illegible]
Canvasback						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Scaup										
Goldeneye										
Bufflehead										
Ruddy										
Other										
Coot:					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Int. Dup. Sec.,
Wash. D. C.

3-7150a
Cont. NR-1
(Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE [redacted] MONTHS OF September TO December, 19[redacted]

(1) Species	(2) Weeks of reporting period: 11	12	13	14	15	16	17	18	(3) Estimated waterfowl days use	(4) Production: Broods seen	Estimated total
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada	10	10			35				385		
Cackling											
Brant											
White-fronted											
Snow											
Blue											
Other											
Ducks:											
Mallard	250,000	700,000	600,000	700,000	750,000	150,000	150,000	150,000	24,396,700		
Black	800	800	800	800	800	100	100	100	17,800		
Gadwall	200	100		100	100				7,700		
Baldpate	800	100			800				45,800		
Pintail	80,000	300,000	80,000	80,000	80,000	5,000	5,000	2,000	4,921,000		
Green-winged teal	1,000	800	800	800	100				34,800		
Blue-winged teal									212,100		
Cinnamon teal											
Shoveler	200	100	100	200	200				11,800		
Wood	800	800	800	100	100				58,800		
Redhead	100	100	800	800	800	800	800	800	12,600		
Ring-necked			800	800	800	800	800	800	18,800		
Canvasback			200	100	800	400	800	800	11,800		
Scaup	800	800	1,000	2,000	5,000	5,000	5,000	2,000	150,800		
Goldeneye	100	100	100	100	200	100	100	100	4,300		
Bufflehead											
Ruddy			100	100	100				2,100		
Other [redacted]		200	300	400	500	100	100	100	11,900		
Coot:	5,000	800	3,000	5,000	4,000	1,000	200		308,100		

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production
Swans			
Geese	[illegible]	[illegible]	
Ducks	29,907,800	[illegible]	
Coots	305,180	10,000	

SUMMARY

Principal feeding areas ______________________

____

Principal nesting areas ______________________

____

Reported by Ray C. Steele

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

(1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.

(2) Weeks of Reporting Period: Estimated average refuge populations.

(3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.

(4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.

(5) Total Days Use: A summary of data recorded under (3).

(6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.

(7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C. 37944
1953

3-1750
Form NR-
(Rev. March 1953)

WATERFOWL

REFUGE Calhoun MONTHS OF September TO December, 19[illegible]

(1) Species	(2) Weeks of reporting period: 1	2	3	4	5	6	7	8	9	10
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada	60			60	300	300	300	400	200	600
Cackling										
Brant										
White-fronted										
Snow						300	300	600	600	1,000
Blue						200	400	1,000	2,000	1,000
Other										
Ducks:										
Mallard	100	100	200	800	1,800	2,000	3,000	3,000	8,000	11,000
Black								400	400	200
Gadwall								200	600	200
Baldpate						300	1,000	3,000	4,000	2,000
Pintail			2,000	4,000	1,000	800	800	2,000	3,000	3,000
Green-winged teal				5		100	100	300	1,000	1,000
Blue-winged teal	1,800	1,800	2,000	2,800	8,000	6,000	7,000	5,000	800	
Cinnamon teal										
Shoveler								300	300	400
Wood	800	400	1,000	1,800	1,800	800	800	800	400	800
Redhead									100	100
Ring-necked										1,000
Canvasback										
Scaup							100	300	300	1,000
Goldeneye										
Bufflehead										
Ruddy										200
Other [illegible]										100
Coot:					300	1,000	1,300	2,300	5,300	8,300

Int. Dup. Sec.,
Wash., D. C.

3-7150a
Cont. NR-1
(Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE Calhoun MONTHS OF September TO December, 19[illegible]

(1) Species	(2) Weeks of reporting period: 11	12	13	14	15	16	17	18	(3) Estimated waterfowl days use	(4) Production: Broods seen	Estimated total
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada	600	600	700	800	600	500	500	500	48,660		
Cackling											
Brant											
White-fronted											
Snow	1,000	1,000	1,100	1,000	1,000	1,000	1,000	1,000	75,000		
Blue	1,200	1,000	1,400	1,200	1,200	1,200	1,200	1,200	99,600		
Other											
Ducks:											
Mallard	40,100	165,000	95,000	80,000	60,000	300,000	200,000	200,000	5,068,600		
Black	600	800	100	100	100	800	200	200	19,600		
Gadwall	100	100	100	100	100				9,100		
Baldpate	1,000	800	100	200	100				82,800		
Pintail	1,000	5,000	3,000	1,000	1,000				178,000		
Green-winged teal	1,000	800	100	100	100				88,055		
Blue-winged teal									240,100		
Cinnamon teal											
Shoveler	800	100	100	200	800	200			18,100		
Wood	400	800	100	100	100				88,100		
Redhead	100	800	800	100	100	100	100	100	8,400		
Ring-necked	1,000	1,000	800		800	200	200	200	28,000		
Canvasback					100	100			1,400		
Scaup	1,000	5,000	800	200	1,000	1,000	800	800	79,800		
Goldeneye		100	100		100	100	100	100	4,200		
Bufflehead			80						380		
Ruddy	100	800	80	100	100				4,580		
Other[illegible]	100	800	100	200	800	100	100	100	9,100		
Coot:	2,000	800	200	200	200				145,600		

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production
Swans			
Geese	225,440	3,200	
Ducks	8,815,085	302,000	
Coots	145,000	5,000	

SUMMARY

Principal feeding areas

Principal nesting areas

Reported by Ray C. Steele

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

(1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.

(2) Weeks of Reporting Period: Estimated average refuge populations.

(3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.

(4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.

(5) Total Days Use: A summary of data recorded under (3).

(6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.

(7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C. 37944
1953

3-1751
Form NR-[redacted]
(Nov. 1945)

MIGRAT[illegible] BIRDS
(other than waterfowl)

Refuge Calhoun Months of September to December 194[illegible]

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
Great blue heron	50	9-6-58	250	10-9-58	20	12-12-58				400
American egret	250	9-2-58	2500	9-15-58	10	10-24-58				4000
Double-crested cormorant	100	9-2-58	3000	10-20-58	10	12-12-58				5000
II. Shorebirds, Gulls and Terns:										
Gulls	500	9-2-58	6000	12-12-58	2000	12-12-58				10,000
Killdeer	500	9-2-58	700	11-10-58	10	12-12-58				1,500
Wilson snipe	200	9-2-58	500	11-5-58	20	11-20-58				800

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl	- -	- -	- -		
Magpie	- -	- -	- -		
Raven	- -	- -	- -		
Crow	Resident all year. Abundant.				

Reported by.....

INSTRUCTIONS

(1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

3-1751
Form NR-
(Nov. 1945)

MIGRAT[illegible] BIRDS
(other than waterfowl)

Refuge Batchtown Months of Sept. to December 1953

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
Great blue heron	50	9-5-53	200	10-0-53	25	12-12-53				300
American egret	100	9-8-53	1000	9-25-53	5	10-24-53				1000
Double-crested cormorant	200	9-2-53	2000	10-30-53	3	12-12-53				6000
II. Shorebirds, Gulls and Terns:										
Gulls	400	9-8-53	4000	12-13-53	4000	12-12-53				15000
Killdeer	50	9-4-53	500	11-10-53	20	12-10-53				1000
Wilson snipe	300	9-2-53	500	11-4-53	50	11-20-53				800

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow	Residents all year. Abundant.				

Reported by.....

INSTRUCTIONS

(1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

3-1752
Form [illegible]-2
(Apri[illegible]1946)

UPLAND GAME BIRDS

1613

Refuge Calhoun & Batchtown Months of Sept. to December, 194[illegible]

UPLAND GAME BIRDS

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total	Percentage	Hunting	For Re-stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
None										

INSTRUCTI

Form NR-2 - UPLAND GAME BIRDS.*

(1) SPECIES: Use correct common name.

(2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.

(4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.

(5) REMOVALS: Indicate total number in each category removed during the report period.

(6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.

(7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

* Only columns applicable to the period covered should be used.

3-1753
Form [illegible]-3
(June 1945)

BIG GAME

Refuge Calhoun & Batchtown Calendar Year 1953

Calhoun & Batchtown Calendar Year 1953

BIG GAME

(1) Species	(2) Density	(3) Young Produced	(4) Removals				(5) Losses			(6) Introductions		(7) Estimated Total Refuge Population		(8) Sex Ratio
Common Name	Cover types, total Acreage of Habitat	Number	Hunting	For Re-stocking	Sold	For Research	Predation	Disease	Winter Loss	Number	Source	At period of Greatest use	As of Dec. 31	
None														

Remarks:

Reported by _____

INSTRUCTIONS

Form NR-3 - BIG GAME

(1) SPECIES: Use correct common name; i.e., Mule deer, black-tailed deer, white-tailed deer. It is unnecessary to indicate sub-species such as northern or Louisiana white-tailed deer.

(2) DENSITY: Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) YOUNG PRODUCED: Estimated total number of young produced on refuge.

(4) REMOVALS: Indicate total number in each category removed during the year.

(5) LOSSES: On the basis of known records or reliable estimates indicate total losses in each category during the year.

(6) INTRODUCTIONS: Indicate the number and refuge or agency from which stock was secured.

(7) TOTAL REFUGE POPULATION: Give the estimated population of <u>each species</u> on the refuge at period of its greatest abundance and also as of Dec. 31.

(8) SEX RATIO: Indicate the percentage of males and females of each species as determined from field observations or through removals.

116008

3-1755
Form NP-5
(April 1946)

DISEASE

Refuge Calhoun & Batchtown Refuges Year 1955

DISEASE

Botulism None Lead Poisoning or other Disease None

Period of outbreak.....

Period of heaviest losses.....

Losses:

	Actual Count	Estimated
(a) Waterfowl	.....	.....
(b) Shorebirds	.....	.....
(c) Other	.....	.....

Number Hospitalized	No. Recovered	% Recovered
(a) Waterfowl	.....	.....
(b) Shorebirds	.....	.....
(c) Other	.....	.....

Areas affected (location and approximate acreage).....

Water conditions (average depth of water in sickness areas, reflooding of exposed flats, etc.

Conditions of vegetation and invertebrate life.....

Remarks.....

Kind of disease.....

Species affected.....

Number Affected Species	Actual Count	Estimated
.....	.....	.....
.....	.....	.....
.....	.....	.....

Number Recovered.....

Number lost.....

Source of infection.....

Water conditions.....

Food conditions.....

Remarks.....

3-1756
Form NR-6
(April [illegible]46)

FISH

Refuge Calhoun & Batchtown Refuges Year 194[illegible]

FISH

Species	Relative Abundance	Sport Fishing		Commercial Fishing		Restocking		Number removed for Restocking
		Man days Fishing	Number Taken	No. of Permits	Pounds Taken	Number Stocked	Area Stocked	

Nothing to report.

REMARKS:

3-1757
Form NR-,
(April 1946)

PLANTINGS
(Marsh - Aquatic - Upland)

Refuge Calhoun and Barbadoes Year 194 58

Species	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount & Nature of Propagules	Date of Planting	Survival	Cause of Loss	Remarks
			Nothing to report.					

TOTAL ACREAGE PLANTED:

Marsh and aquatic.....
Hedgerows, cover patches.....
Food strips, food patches.....
Forest plantings.....

3-1758
Form NR-8
(April 1[illegible])

CULTIVATED CROPS

Refuge Calhoun & Batchtown Year 194 53

Permittee (If farmed by refuge personnel, so indicate)	Permit No.	Unit or Location	Crops Grown	Avg. Yield per Acre	Permittee's Share		Government's Share or Return				
							Harvested		Unharvested		Compensatory Services, or Cash Revenue
					Acres	Bu. Harvested	Acres	Bu.	Acres	Bu.	
W. F. Duncan	361	26 acres	corn	31		900				450	
H. C. Bimslager*	362	60 "	corn (30)	29		356		213½			$294.05
H. C. Weigel	363	20 "	corn	14		210		70			81.00
John Held	364	8 "	corn	16		90				45	
Joe Navarre	365	6 "	corn	24		111		57			48.10
Robert LaMarsh	366	6 "	corn	40		120				60	
Howard Wimsball	367	10 "	corn	76		570		190			247.00
Duff Fry	368	10 "	corn	40		267				155	
Ernest Dabbs	369	10 "	Nothing (too dry)								
August Teppmeyer	370	10 "	beans	19		144		48			119.52

* Due to dry conditions only 30 acres planted.

Summary of Crops Grown:

Crop	Acreage	Permittee's Share Acres	Permittee's Share Bushels	Government's Share Harvested Acres	Government's Share Harvested Bu.	Government's Share Unharvested Acres	Government's Share Unharvested Bu.
corn	116		2624		533½		708
beans	10		144		48		

Total Revenue $ 789.67

DIRECTIONS FOR PREPARING FORM NR-8
CULTIVATED CROPS

Cultivated Crops Report Form NR-8 should be prepared on a calendar-year basis for all crops harvested or utilized during the calendar year and submitted with the December 31 refuge report.

Permittee - List each permittee separately. If lands of the refuge are farmed by refuge personnel or hired labor, this should be indicated in the Permittee column.

Permit No. - List the number of the Special Use Permit issued to the individual.

Use or Location - The Unit No. or name specified in the Economic Use Plan should be listed in this column.

Crops Grown - A separate line of the form should be used for each crop grown by each permittee or by refuge personnel. This is important, since if each crop grown by each operator is not specifically enumerated, the report will be of no value for statistical purposes.

Average Yield per Acre - It is important that the average yield per acre of each crop grown by each operator should be shown.

Permittee's Share - Only the number of acres harvested or utilized by the permittee for his own benefit should be shown under the Acres column, and only the number of bushels of farm crops harvested by the permittee for himself should be shown under the Bushels Harvested column. It is requested that all crops harvested be reduced to bushels wherever possible, or, as in the case with the harvesting of seed such as that of sweet clover, alfalfa, bromegrass, etc., the total harvested crop in pounds may be shown. Timothy, alfalfa, or other hay harvested by the permittee should be shown on Form NR-10 and should not be shown in the Permittee's Share column.

Government's Share or Return - Harvested - Show the number of bushels harvested for the Government and the acreage from which this share is harvested, both for grain raised by refuge personnel and by permittees. Unharvested - show the exact number of acres of crops allowed to remain unharvested as food and cover for wildlife. An estimate of the number of bushels of grain that is available for the wildlife in such unharvested crops should be shown in the Bushels column.

Compensatory Services, or Cash Revenue - Show other services received by the Government in cooperative farming activities, the number of acres of food strips planted for wildlife, the amount of wildlife crops not otherwise reported that are planted by cooperators for the Service, or the cultivation of wildlife plantations. If the permit is on a fee basis indicate the total cash revenue received by the Service.

3-175
Form NR-3
(April 1946)

COLLECTIONS AND RECEIPTS OF PLANTING STOCK
(Seeds, rootstocks, trees, shrubs)

Refuge Calhoun & Batchtown Year 194 53

COLLECTIONS AND RECEIPTS OF PLANTING STOCK
(Seeds, rootstocks, trees, shrubs)

Species	Collections				Receipts		Total Amounts on Hand	Amount Surplus
	Amount	Date or Period or Collection	Method	Unit Cost	Amount	Source		
			Nothing to report.					

3-1760
Form NR-10
(April [illegible]6)

HAYING AND GRAZING

Refuge Calh[illegible] & Butchinson Year 194[illegible]

HAYING AND GRAZING

Permittee	Permit No.	Unit or Location	Actual Acreage Utilized	Animal Use Months	Tons of Hay Harvested	Period of Use From – To	Rate	Total Income	Remarks
				Nothing to report.					

Totals:

Acreage grazed..... Animal use months..... Total income Grazing.....

Acreage cut for hay..... Tons of hay cut..... Total income Haying.....

3-1761
Form NR-1

TIMBER REMOVAL

Refuge Calhoun & Batchtown Year 1943

TIMBER REMOVAL

Permittee	Permit No.	Unit or Location	Acreage	No. of Units Expressed in B. F., ties, etc.	Rate of Charge	Total Income	Reservations and/or Diameter Limits	Species Cut
			Nothing to report.					

Total acreage cut over..... Total income.....

No. of units removed B. F..... Method of slash disposal.....
Cords.....
Ties.....
.....